

WHAT IS CLAIMED IS:

1. A switch that selectively switches from one terminal to another among a plurality of terminals to which a computer is connected, and that can be remotely operated by a remote-control computer connected to a predetermined network,
- the switch comprising:
- an information acquiring unit that acquires cursor location information from the remote-control computer;
- an image extracting unit that extracts a cursor peripheral image from an image storing unit that stores an image obtained from the computer, based on the cursor location information acquired by the information acquiring unit; and
- a cursor image transmitting unit that transmits the cursor peripheral image, extracted by the image extracting unit, to the remote-control computer.
2. The switch as claimed in claim 1, wherein the image extracting unit detects an image change from a difference between a first image obtained from the computer and a second image obtained after the first image, and extracts a predetermined region that includes the changed portion of the second image with respect to the first image.
3. The switch as claimed in claim 1, further comprising an image transmitting unit that transmits a general image to the remote-control computer,
- wherein, when acquiring the cursor location information from the remote-control computer, the image transmitting unit stops transmitting the general image to the remote-control computer, and, after the cursor peripheral image is transmitted by the cursor image transmitting unit, the image transmitting unit resumes

transmitting the general image to the remote-control computer.

4. The switch as claimed in claim 1, further
5 comprising an image processing unit that performs image processing on a general image to be transmitted to the remote-control computer,

wherein, when acquiring the cursor location information from the remote-control computer, the image
10 processing unit stops performing the image processing on the general image, and, after the cursor peripheral image is transmitted by the cursor image transmitting unit, the image processing unit resumes the image processing on the general image.

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5. The switch as claimed in claim 3, wherein the image transmitting unit detects an image change from a difference between a first image obtained from the computer and a second image obtained after the
20 first image, and transmits a predetermined region that includes the changed portion of the second image with respect to the first image, to the remote-control computer.

25 6. The switch as claimed in claim 1, wherein the image extracting unit extracts the cursor peripheral image at predetermined intervals.

7. The switch as claimed in claim 6, wherein
30 the predetermined intervals are changed in accordance with a preset value transmitted from the remote-control computer.

8. The switch as claimed in claim 6, wherein
35 the predetermined intervals are changed in accordance with the congestion level of the network.

9. The switch as claimed in claim 1, further comprising an image compressing unit that compresses an image to be transmitted to the remote-control computer.

5 10. The switch as claimed in claim 9, wherein the image compressing unit changes a compression technique or a compression ratio in accordance with the congestion level of the network.

10 11. An image transmission apparatus that transmits an image to an information processing apparatus connected to a predetermined network,
the image transmission apparatus comprising:
an information acquiring unit that acquires
15 cursor location information from the information processing apparatus;
an image extracting unit that extracts a cursor peripheral image from an image storing unit that stores the image to be transmitted to the information
20 processing apparatus, based on the cursor location information acquired by the information acquiring unit;
and
a cursor image transmitting unit that transmits
the cursor peripheral image, extracted by the image
25 extracting unit, to the information processing apparatus.

12. The image transmission apparatus as claimed in claim 11, wherein the image extracting unit detects
30 an image change from a difference between a first image to be transmitted to the information processing apparatus and a second image to be transmitted after the first image, and extracts a predetermined region that includes the changed portion of the second image
35 with respect to the first image.

13. The image transmission apparatus as claimed

in claim 11, further comprising an image transmitting unit that transmits a general image to the information processing apparatus,

5 wherein, when the cursor location information is acquired from the information processing apparatus, the image transmitting unit stops transmitting the general image to the information processing apparatus, and, after the cursor peripheral image is transmitted by the cursor image transmitting unit, the image transmitting
10 unit resumes transmitting the general image to the information processing apparatus.

14. A method of transmitting an image to an information processing apparatus connected to a
15 predetermined network, comprising the steps of:

acquiring cursor location information from the information processing apparatus;

extracting a cursor peripheral image from an image storing unit that stores the image to be
20 transmitted to the information processing apparatus, based on the cursor location information acquired in the information acquiring step; and

transmitting the cursor peripheral image, extracted in the image extracting step, to the
25 information processing apparatus.

15. The method as claimed in claim 14, wherein the image extracting step includes detecting an image change from a difference between a first image to be
30 transmitted to the information processing apparatus and a second image to be transmitted after the first image, and extracting a predetermined region that includes the changed portion of the second image with respect to the first image.

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16. The method as claimed in claim 14, further comprising the step of transmitting a general image to

the information processing apparatus,

wherein the image transmitting step includes stopping transmitting the general image to the information processing apparatus when the cursor
5 location information is acquired from the information processing apparatus, and resuming transmitting the general image to the information processing apparatus after the cursor peripheral image is transmitted through the cursor image transmitting step.

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17. The method as claimed in claim 14, further comprising the step of performing image processing on a general image to be transmitted to the information processing apparatus,

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wherein the image processing step includes stopping performing the image processing on the general image when the cursor location information is acquired from the information processing apparatus, and resuming the image processing on the general image after the
20 cursor peripheral image is transmitted through the cursor image transmitting step.

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18. The method as claimed in claim 16, wherein the image transmitting step includes detecting an image
25 change from a difference between a first image obtained from a computer and a second image acquired after the first image, and transmitting a predetermined region that includes the changed portion of the second image with respect to the first image, to the information processing apparatus.

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19. The method as claimed in claim 14, wherein the image extracting step includes extracting the cursor peripheral image at predetermined intervals.

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20. The method as claimed in claim 19, wherein the predetermined intervals are changed in accordance

with a preset value transmitted from the information processing apparatus.

21. The method as claimed in claim 19, wherein
5 the predetermined intervals are changed in accordance with the congestion level of the network.

22. The method as claimed in claim 14, further comprising the step of compressing an image to be
10 transmitted to the information processing apparatus.

23. The method as claimed in claim 22, wherein the image compressing step includes changing a compression technique or a compression ratio in
15 accordance with the congestion level of the network.

24. A method of displaying an image transmitted from an information processing apparatus connected to a predetermined network, comprising the steps of:
20 acquiring cursor location information;
transmitting the cursor location information to the information processing apparatus; and
combining a first image obtained from the information processing apparatus with a second image in
25 accordance with the cursor location information acquired from the information processing apparatus that have received the cursor location information in the previous step.

30 25. An image transmitting program product for operating a computer that transmits an image to an information processing apparatus connected to a predetermined network,
the image transmitting program product causing
35 the computer to function as:
an information acquiring unit that acquires cursor location information from the information

processing apparatus;

an image extracting unit that extracts a cursor peripheral image from an image storing unit that stores the image to be transmitted to the information

5 processing apparatus, based on the cursor location information acquired by the information acquiring unit; and

10 a cursor image transmitting unit that transmits the cursor peripheral image, extracted by the image extracting unit, to the information processing apparatus.

26. The image transmitting program product as claimed in claim 25, wherein the image extracting unit
15 detects an image change from a difference between a first image to be transmitted to the information processing apparatus and a second image to be transmitted after the first image, and extracts a predetermined region that includes the changed portion
20 of the second image with respect to the first image.

27. The image transmitting program product as claimed in claim 25, further causing the computer to function as an image transmitting unit that transmits a
25 general image to the information processing apparatus, wherein, when the cursor location information is acquired from the information processing apparatus, the image transmitting unit stops transmitting the general image to the information processing apparatus, and,
30 after the cursor peripheral image is transmitted by the cursor image transmitting unit, the image transmitting unit resumes transmitting the general image to the information processing apparatus.

35 28. The image transmitting program product as claimed in claim 25, further causing the computer to function as an image processing unit that performs

image processing on a general image to be transmitted to the image processing apparatus,

wherein, when the cursor location information is acquired from the information processing apparatus, the
5 image processing unit stops performing the image processing on the general image, and, after the cursor peripheral image is transmitted by the cursor image transmitting unit, the image transmitting unit resumes the image processing on the general image.

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29. The image transmitting program product as claimed in claim 27, wherein the image transmitting unit detects an image change from a difference between a first image to be transmitted to the information
15 processing apparatus and a second image to be transmitted after the first image, and transmits a predetermined region that includes the changed portion of the second image with respect to the first image, to the information processing apparatus.

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30. The image transmitting program product as claimed in claim 25, wherein the image extracting unit extracts the cursor peripheral image at predetermined intervals.

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31. The image transmitting program product as claimed in claim 30, wherein the predetermined intervals are changed in accordance with a preset value transmitted from the information processing apparatus.

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32. The image transmitting program product as claimed in claim 30, wherein the predetermined intervals are changed in accordance with the congestion level of the network.

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33. The image transmitting program product as claimed in claim 25, further causing the computer to

function as an image compressing unit that compresses an image to be transmitted to the information processing apparatus.

5 34. The image transmitting program product as claimed in claim 33, wherein the image compressing unit changes a compression technique or a compression ratio in accordance with the congestion level of the network.

10 35. An image displaying program product for operating a computer to display an image transmitted from an information processing apparatus connected to a predetermined network,

the image displaying program product causing the
15 computer to function as:

an information acquiring unit that acquires cursor location information;

an information transmitting unit that transmits the cursor location information, acquired by the
20 information acquiring unit, to the information processing apparatus; and

an image combining unit that combines a first image obtained from the information processing apparatus with a second image in accordance with the
25 cursor location information transmitted from the information transmitting unit that have received the cursor location information from the information processing apparatus, the image combining unit then outputting a composite image to a display unit.

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